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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,782	01/30/2004	Chung-Hsiao R. Wu	5681-73900	7149
35690	7590	09/20/2005		
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C. P.O. BOX 398 AUSTIN, TX 78767-0398			EXAMINER NGUYEN, VIET Q	
			ART UNIT 2827	PAPER NUMBER
DATE MAILED: 09/20/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/768,782

Applicant(s)


R. WU, CHUNG-HSIAO

Examiner

Viet Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Election filed on 08/22/2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 11, 12 and 22 is/are rejected.
- 7) ☒ Claim(s) 3-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/27/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims **1-12 and 22** are present for examination.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al (US 2004/0162697).

**Smith et al (see 3)** discloses a method for sensing a temperature associated with a general integrated circuit (System-On-Chip or SOC) which includes the step (32) for applying voltage to the sensing thermal diode, step (44) for comparing the sensed temperature with a predetermined threshold value, and step (54) for inserting a "delay" clock cycles to one of the operating circuit associated with such sensing requirements. For example, paragraph [0047] obviously stated that the step "**Delay 54, which may be of zero or more clock cycles or event triggered, idles the process 30** (Fig. 3) ...", thus obviously hinted that these inserted clock cycles might be inserted right after the steps of "sensing temperature" and "comparing the temperature with the threshold" if desire.

In regard to the claimed “sensing a temperature associated with a memory subsystem”, it is noted that this reference teaches the sensing method for a general integrated circuit (SOC), and paragraph [0006] stated that “...such a SOC may include a CPU, a memory controller and a direct memory access controller (DMAC). Thus, it would have been obvious to one skilled in this art that the use of memory subsystems associated with SOC circuit are possible expedient design choice and thus the delay clocks or idle clock cycles inserted by the above-mention method steps for the memory accesses associated with such SOC can be carried out without hindsight or additional costs, etc.

3. Claims 1-2, 11-12, & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Soltis, Jr et al (US 2004/0117678)**.

**Soltis, Jr. et al (see 1)** discloses a computer system including a processor (104, 107), and memory subsystem (140), and a memory controller (140) coupled to said processor (104, 170) and also said memory subsystem (142) wherein said memory controller is configured to control accesses to said memory subsystem by said processors. Fig. 2 further shows a method for sensing a temperature associated with whole system (processor, controller, memory) which includes a temperature sensor (158) coupled to the system, and steps (202-212) are used of determining if the sensed temperature exceeds a predetermined threshold or not. Although this reference does not clearly suggest the use of service processor to insert idle clock cycles, however, paragraph [0038] mentioned that the use of clock “latency delay” is used by the “cache

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memory (120)" and it is **programmable** and Fig. 1 has already at least suggested the use of a "system management processor (160)" for controlling the memory subsystem including its memory controller (140, thus obviously implied that one or more additional idle clock cycle scan be programmed in association with the sue between any memory accesses based on eth sensing temperature if needed.

4. Other claims are objected as being dependent upon rejected base claims; however, they contain allowable subject matter over the prior arts of record for the following stated reasons:


Claims **3-10** recite the use of control signal received from the sensor to control additional clock cycles between multiple of memory accesses, etc., which are not fairly suggested or seen elsewhere;

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q. Nguyen whose telephone number is (571) 272-1788. The examiner can normally be reached on 7am-6pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
V. Nguyen  
09/17/2005



VIET Q. NGUYEN  
PRIMARY EXAMINER